IN THE CLAIMS:

Please amend the claims as follows.

1. (Amended) A method for determining the location of an object in a passenger compartment of a vehicle, comprising the steps of:

arranging a first ultrasonic transducer on a ceiling of the vehicle and a second ultrasonic transducer at a different location in the vehicle such that a first axis connecting the first and second transducers is substantially parallel to a second axis traversing a volume in the passenger compartment above a seat in which the object is situated,

transmitting ultrasonic waves from [a] the first transducer into the passenger compartment;

receiving ultrasonic waves reflected off an object in the passenger compartment by means of the first transducer;

calculating a first distance from the first transducer to the object based on the time difference between the transmitted waves and reflected waves when received by the first transducer;

transmitting different ultrasonic waves from [a] the second transducer into the passenger compartment;

receiving ultrasonic waves reflected off the object in the passenger compartment by means of the second transducer;

calculating a second distance from the second transducer to the object based on the time difference between the transmitted waves and reflected waves when received by the second transducer; and

Cont. A1

determining an approximate location of the object in the passenger compartment based on the first distance and the second distance.

Claim 2, line 2, after "third", insert --ultrasonic--;

line 4, after "receiving", insert --ultrasonic--.

Claim 3, line 2, after "fourth", insert --ultrasonic--;

line 4, after "receiving", insert --ultrasonic--.

7. (Amended) The method of claim 1, further comprising the steps of:

identifying a first volume within the passenger compartment adjacent the airbag where occupancy by a human at the time of airbag deployment would place the human in danger;

identifying a second volume within the passenger compartment where occupancy by a human requires deployment of an airbag in a sufficiently severe vehicle crash; and

defining [a first] the second axis as the axis connecting the centers of the first and second volumes [; and positioning the first transducer and the second transducer so that they lie on a second axis which is approximately parallel to said first axis].

8. (Amended) The method of claim 1, further comprising the [steps] step of:

[positioning the first transducer on a the ceiling of the vehicle, and]

positioning the second transducer on a dashboard of the vehicle.

9. (Amended) The method of claim 2, further comprising the steps of:

[positioning the first transducer on a ceiling of the vehicle,]

positioning the second transducer on a dashboard of the vehicle, and

positioning the third transducer on or adjacent an interior side surface of said passenger compartment.

10. (Amended) The method of claim 3, further comprising the steps of:

[positioning the first transducer on a ceiling of the vehicle,]

positioning the second transducer on a dashboard of the vehicle,

positioning the third transducer on an interior side surface of said passenger compartment, and

positioning the fourth transducer on or adjacent an interior side surface of said passenger compartment.

11. (Amended) A method for identifying an object in a passenger compartment, comprising the steps of:

mounting at least [two] <u>first and second</u> ultrasonic transducers at different locations in the passenger compartment;

conducting training identification tests on a plurality of different classes of objects when situated in the passenger compartment, each of said tests comprising the steps of transmitting ultrasonic waves from the first transducer into the passenger compartment, receiving waves reflected off the object by means of the first transducer, transmitting different ultrasonic waves

from the second transducer into the passenger compartment, receiving waves reflected off the object by means of the second transducer, and associating an object class with data from each test,

generating a pattern recognition algorithm from the training test results and associated object classes such that the algorithm is able to process information from the reflected waves from the first and second transducers [providing] and provide the identification of the class of the object;

transmitting ultrasonic waves from the first transducer into the passenger compartment when identification of an object in the passenger compartment is desired;

receiving waves reflected off the object by means of the first transducer;

transmitting different ultrasonic waves from the second transducer into the passenger compartment when identification of the object in the passenger compartment is desired;

receiving waves reflected off the object by means of the second transducer; and

applying the algorithm based on the first and second reflected waves to identify the object in the passenger compartment.

23. (Amended) A method for determining the location of an object in a passenger compartment of a vehicle, comprising the steps of:

arranging a first receiver on a ceiling of the vehicle and a second receiver at a different location in the vehicle such that a first axis connecting the first and second receivers is substantially parallel to a second axis transversing a volume in the passenger compartment above a seat in which the object is situated;

mounting [at least three receivers] a third receiver at a different [locations] location in the passenger compartment than the first and second receivers, each receiver comprising distance measurement means;

[providing a source of illumination;]

calculating a first distance from the first receiver to the object based on the output of the first receiver;

calculating a second distance from the second receiver to the object based on the output of the second receiver;

calculating a third distance from the third receiver to the object based on the output of the third receiver; and

determining an approximate location of the object in the passenger compartment based on the first distance, the second distance and the third distance.

24. (Amended) The method of claim 23, wherein said receivers are arranged to receive ultrasonic radiation.

25. (Amended) The method of claim 23, wherein said receivers are arranged to receive electromagnetic radiation.

26. (Amended) The method of claim 23, further comprising the steps of:

mounting a fourth receiver at a different location in the passenger compartment, [said] the fourth receiver comprising distance measurement means,

calculating a fourth distance from the fourth receiver to the object based on the output of the fourth receiver,

A3 Cancel

determining an approximate location of the object in the passenger compartment based on the first distance, the second distance, the third distance and the fourth distance [calculating a third distance from the third receiver to the object based on the output of the third receiver].

Please add the following new claims.

27. The method of claim 23, wherein the first, second and third receivers are of the same type.

28. A method for determining the location of an object in a passenger compartment of a vehicle, comprising the steps of:

transmitting ultrasonic waves from a first transducer into the passenger compartment;

receiving waves reflected off an object in the passenger compartment by means of the first transducer;

calculating a first distance from the first transducer to the object based on the time difference between the transmitted waves and reflected waves when received by the first transducer;

transmitting different ultrasonic waves from a second transducer into the passenger compartment;

receiving waves reflected off the object in the passenger compartment by means of the second transducer;

calculating a second distance from the second transducer to the object based on the time difference between the transmitted waves and reflected waves when received by the second transducer; and